3. Callen

Program Name: Callen.java Input File: callen.dat

Callen was intrigued with the cold weather in the northern US this past winter. He did some research into wind chills and found the following formula:

Formula	Legend
$c = 35.74 + 0.6215t - 35.75s^{0.16} + 0.4275ts^{0.16}$	t = ambient air temp (°F) s = wind speed (mph) c = wind chill (°F)

The ambient air temp must be at or below 50 °F and the wind speed must be at or greater than 3 mph. Callen found Web sites that provide wind chill calculators and display charts but he decides this is a good opportunity to practice his programming skills. However, he feels a little unsure and has asked for your assistance.

Callen wants to be able to display different wind chill charts with specific ranges for both temp and wind speed. For example, starting at 20 °F and ending at −10 °F with a temp step size of 10 while the wind speed starts at 15 mph and ends at 30 mph with a wind speed step size of 5 would produce the following chart:

```
        Wind Speeds
Temps       15      20      25      30
   20      6.2     4.2     2.6     1.3
   10     -6.6    -8.9   -10.7   -12.3
    0    -19.4   -22.0   -24.1   -25.9
  -10    -32.2   -35.1   -37.5   -39.4
```

Input: An unknown number of lines of data but ≤ 10. Each line will contain six integers in the order: $temp_1$, $temp_2$, temp step size, $wind\ speed_1$, $wind\ speed_2$, and wind speed step size. Temps will be between 50 and -120 and wind speeds will be between 3 and 100. Step sizes for both will be between 1 and 25. $Temp_1$ could be either higher or lower than $temp_2$ and wind speed is the same.

Output: A chart precisely formatted as above (and in sample output below) with column widths of exactly 7 characters with all items right-aligned in their columns except for the first row which is left aligned in the second column. The second row displays wind speeds as integers from lowest value to highest value. The first column displays temps as integers from highest value to lowest value. Therefore, an input of −10 20 10 30 15 5 would produce the same result as 20 −10 10 15 30 5 as shown above. Below each table display a line with 25 asterisks "**********".

Sample input:

```
20 -10 10 15 30 5
-110 0 25 70 20 15
```

Sample output:

```
        Wind Speeds
  Temps     15     20     25     30
     20    6.2    4.2    2.6    1.3
     10   -6.6   -8.9  -10.7  -12.3
      0  -19.4  -22.0  -24.1  -25.9
    -10  -32.2  -35.1  -37.5  -39.4
*************************
        Wind Speeds
  Temps     20     35     50     65
      0  -22.0  -27.4  -31.1  -34.0
    -25  -54.8  -61.8  -66.6  -70.4
    -50  -87.6  -96.2 -102.2 -106.7
    -75 -120.4 -130.6 -137.7 -143.1
   -100 -153.2 -165.1 -173.2 -179.5
*************************
```